REMARKS

Claims 1-5, 7-39, 46 and 47 were pending. Applicants have added new claims 48-62 and cancelled claims 19-21, 26, 27, 34, and 35. Claims 1-18, 22-25, 28-33, 36-38 and 46-62 are therefore pending upon entry of the new claims. Applicants have amended claims 1-3, 7, 8 and 22. Applicants respectfully request reconsideration of the application for the following reasons.

Amendment to the Claims:

Applicants herewith amend claims 1-3, 7, 8 and 22. The changes are supported in the specification-as-filed, at least at Figure 3 (Mapping Engine 310) and paragraphs [0036]-[0039]. No new matter has been added.

New Claims:

Applicants herewith add new claims 48-62.

New claims 48 and 49 are supported in the specification-as-filed at least at paragraphs [0016] and [0028], respectively.

New claims 50-55 are supported in the specification-as-filed, at least at Figure 3 (IDN Center 216) and paragraphs [0030] and [0031] (claims 50 and 51), paragraphs [0036]-[0038] (claim 52), paragraph [0039] (claim 53), paragraph [0031]

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(claim 54), and paragraph [0036] (claim 55). No new matter is added.

New claims 56-61 are supported in the specification-as-filed at least at Figure 2 and paragraphs [0028] and [0031], paragraph [0039] (claim 58), paragraph [0036] (claim 60), and Figure 4 and paragraphs [0053] (claim 61). No new matter is added.

New claim 62 is supported in the specification-as-filed at least at paragraphs [0015], [0032], and [0036]-[0041]. No new matter is added.

Rejected Claims:

Claims 1-18, 22-25 and 46-50:

Applicants respectfully submit that amended, independent claims 1 and 22 and their respective dependent claims are allowable over Brady.

Applicants respectfully submit that claims 1 and 22 are allowable over Brady because Brady does not disclose, teach or suggest all of the limitations of the amended claims. For example, Brady does not disclose, teach or suggest at least:

> " . . . wherein the management center comprises a mapping engine for *mapping trace routes* between the management center and each of the plurality of nodes, and for mapping trace routes between the management center and the client, and for storing results of the trace routes in a *trace cache*, wherein the management

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center *analyzes the results of the trace routes* in order to determine the electronically *best-performing node* from among the plurality of nodes."

as recited in claim 1; or

" . . . *mapping trace routes* between a management center and a plurality of nodes and between the management center and the client and *comparing the trace routes* between the management center and the plurality of nodes to the trace routes between the management center and the client to determine *an optimal node* . . . ."

as recited in claim 22.

With respect to claim 1, the Examiner states in the Office Action that Brady discloses,

"mapping trace routes between the management center and the at least one node **[Fig. 3, communication links 96, col. 8, line 66 to col. 9, line 6]** and *trace routes* between the management center and the client **[Fig. 1, host 12 determines if a transmission channel to user 16 exists, col. 6, lines 23-35]** *and for comparing the trace routes between the management center with the trace routes between the management center and the client* in order to determine the optimal delivery route. **[Fig. 1, host 12 chooses node 36 to deliver content, col. 6, lines 13-22; shortest path and three alternate paths, col. 9, lines 27-30; e.g., I/O switch 94 selects the best communication link 96 out of multiple links, col. 9, lines 2-4; this is interpreted as a comparison of the shortest paths as well as a comparison of the "best" (i.e., optimal0 paths].**"

OA at pages 3-4 (emphasis in original). The Examiner makes similar comments with respect to claim 22 in the Office Action at pages 9-10. Applicants respectfully disagree.

Applicants contend that Brady teaches a "video server 10" connected to viewing terminals 16 via an asynchronous transfer mode (ATM) network 14. 3:45-47. "Video server 10" includes a

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number of nodes (22, 24, 26, 36, 38, 60). Figure 1. Those nodes are connected with one another by a "network 52", where the network 52 "merely comprises a wiring mesh which enables each communication link in a node to connect to a communication link in an adjacent node." 4:26-29. In other words, although the "server" is accessed via an "ATM" network 14, the individual nodes of the "server" are connected with one another by the wiring mesh "network" 52. Furthermore, although Brady describes the operation of the "server 10," as including assigning a particular node of the server, Brady does NOT disclose how that assignment is made, and more specifically does NOT disclose that assignments are made as recited in the rejected claims. As discussed in more detail below, Brady does NOT disclose mapping trace routes, storing the results of trace routes in a trace cache, or determining a best-performing or optimal node by analysis or comparison of those results. Moreover, those portions of Brady cited by the Examiner as supporting a disclosure of mapping trace routes and determining a best-performing or optimal node, relate to the internal operations of individual nodes within the server as it relates to determining a best link for sending a message, NOT to the operation of a network management center in determining a best node on a network for providing requested content to a client on the network.

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Applicants respectfully submit that the Examiner's equating selecting "a best communication link 96" or an "optimal link adapter 98" as described in Brady with "mapping trace routes," and analyzing or comparing results of those trace routes completely ignores those limitations as recited in the rejected claims. Whatever unspoken standards, methods or other means for determining "best communication link" or "optimal link adapter 98," Brady does NOT disclose, teach or suggest "mapping trace routes" as recited in the rejected claims.

Brady states,

> "[H]ost processor 12 maintains a number of tables to enable node assignment and scheduling functions. A first table (see FIG. 2D) maintains track of which movie and time segments are assigned to which nodes (i.e. delivering nodes). A second table keeps track of node loading in terms of numbers of viewers presently receiving video streams from each node. A third table maintains a list of originating nodes and time segments assigned thereto. A fourth table maintains track of movie start times. The use of each of the aforesaid tables, in enabling control of video server 10, will become apparent from the description below."

4:42-53. Significantly, Brady does NOT disclose, teach or suggest a "trace cache" as recited in claim 1.

Brady states further:

> "Host processor 10 initially makes a tentative prospective assignment of movies to nodes. Subsequently, host processor 12 provides real-time assignment f viewers to node ports upon receiving requests to view movies. Initially, host processor 10 estimates the usage that each movie will receive. That estimate may be based upon usage during a

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> previous corresponding time or may be based upon some other expectation. The estimate is dynamically updated by host processor 12, based upon actual usage. In accordance with the estimate, host processor 12 assigns one or more nodes to service the most frequently requested movies."

4:54-64. In Brady, the assignments are described as being initially made tentatively, and then updated "based upon actual usage." Nodes are not assigned as a result of "mapping trace routes" or "analyz[ing]" or "comparing" trace routes to determine a best-performing or optimal node as recited in claims 1 and 22.

Brady states further:

> "Host processor 12 further determines if a transmission channel exists in ATM network 14 to enable delivery of the movie. If ATM network 14 responds positively, host processor 12 then reserves the communication path within ATM network 14 and informs node 36 that it is to deliver the movie."

6:23-28. Again, Brady "determines" whether a channel exists and "reserves the communication path . . . and informs node 36 that it is to deliver the movie." Brady does NOT disclose, teach or suggest that such determination or reservation is made as a result of "mapping trace routes," or by "comparing" or "analyz[ing]" trace routes as recited in claims 1 and 22.

Applicants respectfully note that the Examiner further cites Brady, column 8, line 66 through column 9, line 6 and column 9, lines 27-30 as disclosing, "trace routes between

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the management center and the client," and other limitations of claims 1 and 22 (see OA, pages 4 and 10). Applicants respectfully submit, however, that this analysis, conclusion, and interpretation of Brady is in error, as the cited portions of Brady relate only to the operation of individual "nodes" - NOT to "trace routes" between a management center and a node as recited in claims 1 and 22.

Applicants respectfully submit that Brady, beginning at column 8, line 31 and continuing through and beyond, column 9, line 30, discusses the "details of a representative node" of Brady, where the "representative nodes" include a Host/Server Interface Node 22 (which the Examiner understands to be part of the management center, when combined with the host 12 of Brady), data store nodes 24, 26, ATM Interface/Data Store Nodes 36, 38, and ATM Data Node 60 (Buffer Node), as shown in Figure 1. This portion of Brady does not refer to the operation of a "management center" as recited in claims 1 and 22. Moreover, to the extent that these portions of Brady relate, at all, to the operation of what the Examiner understands the "management center" of Brady to be (namely host 12 combined with interface node 22), it relates only to the internal operation of the interface node 22, NOT to "mapping trace

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routes" between such node any other node or client, as recited in claims 1 and 22.

In describing the "common node architecture" (8:34) of the various nodes, Brady discusses the relationships among the "communication link 96," an I/O switch 94. Brady states that "I/O switch 94 is further able to select, dynamically, a best communication link 96 given a current state of the various links. Each communication link 96 is independent and is usable for either data or control messages." 9:2-6. Significantly, however, this quoted portion of Brady describes the internal operation of an individual "node" in determining which "link adapter 98" will be used to make what "links" "for transmission of message[s]." This quoted portion of Brady does NOT disclose, teach or suggest "mapping trace routes," much less "analyz[ing]" or "comparing" trace routes and trace route results as recited in claims 1 and 22.

Brady states:

> "A routing processor 100, in the case of outgoing messages, accepts a destination address from either control line interface 102 or data line interface 104. In response, routing processor 100 accesses route table 106, examines the state of routing switch 108 and selects an optimal link adapter 98 for transmission of the message. I/O switch 94 further includes a node set-up circuit 110 that is employed to initialize route table 106. Route table 106 has an individual entry for every possible node address. Each node address entry further specifies a primary link adapter 98 as being the shortest path to the addressed

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node and three alternate link adapters, in case the primary link adapter is not available."

9:18-30. Applicants respectfully disagree with the Examiner's interpretation of this passage as disclosing, "mapping trace routes between the management center and the at least one node" and "trace routes between the management center and the client" as stated in the Office Action at the last line of page 3 through page 4, line 2 (and similarly stated at page 10, lines 1-7).

Applicants respectfully submit Brady discusses determining a link 96 for transmitting "messages" to a given "address." It does not disclose, teach or suggest determining "the electronically best-performing node from among the plurality of nodes" or an "optimal node" as recited in claims 1 and 22, respectively, and further does not disclose, teach or suggest, "directing the [(requested) data to the client from the electronically best-performing node" (claim 1) or "receiving the data at the optimal node to the client; and relaying the data for delivery to the client" (claim 22). The "optimal link adapter 98" or "best communication link" of Brady is merely a best link for forwarding a particular "outgoing message" (9:19), not a best-performing node or optimal node as recited in claims 1 or 22.

Furthermore, where Brady discusses how an "optimal link adapter 98" is selected "for transmission of the message," it

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merely states either a "primary link adapter 98" or one of "three alternate link adapters, in case the primary link adapter is not available." 9:26-30. Brady does NOT disclose, teach or suggest, "mapping trace routes", "analyz[ing]" or "comparing" as recited in claims 1 and 22.

Applicants therefore respectfully request that the Examiner withdraw the rejections of claims 1 and 22. Applicants respectfully submit that dependent claims 2-5, 7-18, 23, 24, and 46-50 are also allowable for at least the same reasons.

Claims 28-33:

For reasons similar to those discussed above with respect to claim 1, Brady does not disclose "comparing results of the trace route from the management center to the client to results of a plurality of trace routes from the management center to a plurality of nodes within the network to provide a hierarchical estimate of a plurality of more efficient network links from nodes within the network to the client" as recited in claim 28.

Claims 36 and 37:

For reasons similar to those discussed above with respect to claim 1, Brady does not disclose "comparing results of the trace route from the management center to the client to

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results of a plurality of trace routes from the management center to a plurality of nodes within the network to provide a hierarchical estimate of a plurality of more efficient network links from nodes within the network to the client" as recited in claim 36. Applicants therefore respectfully request that the Examiner withdraw the rejection of and allow claim 36. Applicants respectfully submit that dependent claim 37 is also allowable for at least the same reasons, because it depends from allowable claim 36.

Claim 38:

For reasons similar to those discussed above with respect to claim 1, Brady does not disclose "comparing results of the trace route from the management center to the first and second computing devices to results of a plurality of trace routes from the management center to a plurality of nodes within the network to provide a hierarchical estimate of a plurality of more efficient network links from nodes within the network to the first and second computing devices" as recited in claim 38. Applicants therefore respectfully request that the Examiner withdraw the rejection of and allow claim 38.

New Claims 50-62:

Applicants respectfully submit that new claims 50-62 are allowable over Brady because Brady does not disclose, teach or

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suggest all of the limitations of the new claims. For example, Brady does not disclose, teach or suggest all of the limitations of new, independent claims 50, 56 and 62.

Applicants respectfully submit that Brady does not disclose, teach or suggest at least the following limitations:

> " . . . analyze the results of the trace routes to determine an electronically best-performing IDN node for streaming the requested content to the client from among the plurality of IDN nodes . . . ."

as recited in claims 50, 56 and 62. As discussed above, with respect to claims 1 and 22, Brady does not disclose, teach or suggest "trace routes." Nor does Brady disclose, teach or suggest, "analyz[ing] the results of the trace routes to determine an electronically best-performing IDN node for streaming the requested content to the client from among the plurality of IDN nodes," as recited in claim 50, 56, and 62. Brady merely discusses, "provid[ing] real-time assignment of viewers to node ports upon receiving requests to view movies. Initially, host processor 10 estimates the usage that each movie will receive. . . . The estimate is dynamically updated by host processor 12, based upon actual usage." 4:55-62. Brady does not disclose an analysis of "results of the trace routes," or determining "an electronically best-performing node," as recited in claim 50, 56, and 62.

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Conclusion:

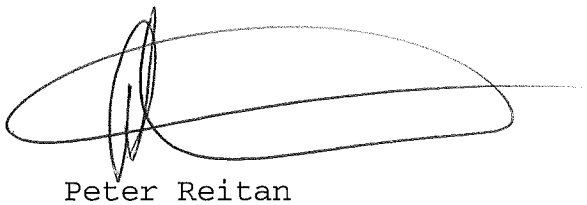
Accordingly, Applicants respectfully submit that Claims 1-5, 7-18, 22-25, 28-33, 36, 37, 38, and 46-52 are in proper form for allowance. Reconsideration and withdrawal of the rejections are respectfully requested and a timely Notice of Allowance is solicited. If there are any questions regarding any aspect of the application, please call the undersigned at (949) 752-7040.

Certification of Transmission

I hereby certify that this paper is being electronically transmitted via EFS Web to the U.S. Patent and Trademark Office on the date shown below.

Tina Kavanaugh January 15, 2009

Respectfully submitted,



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